

## **REMARKS / ARGUMENTS:**

The specification has been amended to replace the spelling of “glyphosate” with “glyfosinate”, as suggested in the Action.

Claims 1 – 102, 107, 119 and 123 - 133 have been canceled.

Claims 104, 108, 109, 118 and 120 – 122, have been amended.

Claim 104 has been amended to change the spelling of “glyphosinate”, and to express the herbicide resistance feature in a manner that matches the antecedent basis provided by the claim from which it now depends.

Claim 108 has been amended to change the spelling of “glyphosinate”, to correct dependency, and to incorporate the features of claim 107, which has been canceled.

Claim 109 has been amended to change the claim from an independent claim to a dependent claim that depends from claim 103, and to delete the description of those features that are described in the claim(s) from which the claim depends in order to more clearly indicate the new features of the claim.

Claim 118 has been amended to change the spelling of “glyphosinate”.

Claim 120 has been amended to incorporate the features of claim 119, which has been canceled.

Claims 121 and 122 have been amended to correct dependency.

New claims 134 – 158 have been added.

Support for the new claims is found in the claims that have been canceled and in the specification.

Claims 103 – 106, 108 – 118, 120 – 122 and 134 – 158 are in the case.

No new matter has been added.

## **Decision by the Office to examine the claims of Groups II and III, rather than the claims of Group I, which had been elected.**

The decision of the Office to examine the claims of Groups II and III, rather than the claims of Group I, for the reason that Group I claims do not contain a herbicidal element, is noted.

All claims now in the case contain the required elements of either Group II or Group III, namely, treatment of an agronomic plant or its propagation material with a

herbicide and with a fungicide which has no significant activity against fungal plant pathogens of the plant (all claims except 120 – 122), or with glyphosate and an agent that has activity against *Gaeumannomyces graminis*, (claims 120 – 122). Optionally, the method can also include treatment with an inoculant. Accordingly, it is respectfully requested that all claims now in the case be examined in view of the amendments and in consideration of the comments provided below and be found to be allowable.

Rejection of claims 103, 108 and 118 under 35 USC §112, second paragraph, due to the spelling of “glyphosinate”, and of claim 120 for lack of antecedent basis.

With respect, it is believed that it is claim 104 that is intended, rather than claim 103. In each of claims 104, 108 and 118, the spelling of the term “glyphosinate”, has been changed to “glyfosinate”, as suggested in the Action.

It is believed that the amendment of claim 120 now provides a correct antecedent basis for all terms.

It is believed that each of the rejected claims now meets the requirements of 35 USC §112, second paragraph, and the withdrawal of the present rejection is requested.

Rejection of claims 103 – 106, 108 – 118 and 120 under 35 USC §103(a) as obvious over U. S. Patent No. 6,232,270 to Branley *et al.*, U. S. Patent No. 6,277,847 to Theodoridis *et al.*, and European Patent No. EP 0 538 231 to Phillion *et al.*

It is respectfully requested that the rejection of claims 103 – 106, 108 – 118 and 120 under 35 USC §103(a) as obvious over U. S. Patent No. 6,232,270 to Branley *et al.* (Branley), U. S. Patent No. 6,277,847 to Theodoridis *et al.* (Theodoridis), and European Patent No. EP 0 538 231 to Phillion *et al.* (Phillion), be reconsidered in view of the amendments to the claims and due to the reasons discussed below and be withdrawn.

Claim 103, and claims that depend ultimately from that claim, describe a method of increasing the vigor and/or the yield of an agronomic plant by treating the plant or its propagation material having a transgenic event that provides herbicide resistance with a fungicide which has no significant activity against fungal plant pathogens for such agronomic plant and with a foliar treatment of the herbicide to which the event provides resistance. As the specification discusses, the combination of these features is novel

and not suggested by the prior art. One reason was the very unexpected finding by the inventors that the treatment of a plant seed (soybeans) with a fungicide (silthiofam) that had no significant activity against any fungal pathogen of the plant resulted in an increase in yield and/or vigor of the plant when it was planted and grown to harvest. Thus, the present claims require treatment with a fungicide that has no significant activity against the fungal pathogens for the plant. Or, as the Office characterizes it, a “non-fungicidal fungicide”. Thus, the presently rejected claims 103 – 118 require treatment of a plant or its propagation material with a fungicide which has no significant activity against fungal plant pathogens for that plant.

The prior art cited, either alone or in combination, does not teach or suggest the claimed invention. Branley, for example, describes a composition containing an active agent (which can be a fungicide) in combination with an enhancer component of a culture, suspension, spores or cells of a *Bacillus sp.* or soil bacteria. Branley does not teach the use of an active agent without the bacteria. Any modification of Branley’s method or composition that did not include the bacteria would apparently destroy the utility of Branley’s method. Therefore, a person of ordinary skill in the art, upon reading the Branley patent, would not find a suggestion or motivation to use a part of Branley’s composition without also using the bacterial enhancer component.

The present invention, on the other hand, does not teach or require the use of a bacterial enhancer component and is fully operable without such element.

It is settled law, in fact, that if a proposal for modifying the prior art in an effort to attain the claimed invention causes the art to become inoperable or destroys its intended function, then the requisite motivation to make the modification would not have existed. *In re Fritch*, 126, 1265 n.12, 23 USPQ2d (Fed. Cir. 1992). Accordingly, the Applicant maintains that the citation of Branley as providing an element of the present claims must fail, because no motivation exists to modify Branley to delete the use of the bacterial enhancer component, and there is no requirement to use the enhancer component in the present claims.

Furthermore, Branley does not teach the use of a fungicide that has no significant activity against the fungal pathogens for the plant, as is required in each of the claims 103 – 106 and 108 – 118. Branley only teaches that the active agent

element of its combination can be a fungicide. Without requiring that the fungicide be one having no significant activity against fungal pathogens for the plant, Branley does not enable one of skill in the art to arrive at the presently claimed invention. Branley's fungicides may be of that sort, or they may not be. Thus, the teaching of Branley must be modified in a way that would direct one of ordinary skill to use the claimed fungicides. Because Branley does not provide this suggestion or motivation, it must be found in a reference other than Branley. But, as is shown below, neither Theodoridis nor Phillion provide this suggestion.

Theodoridis teaches particular herbicides, which may be used in conjunction with certain active ingredients, including fungicides – among a long list of other actives. Like Branley, Theodoridis fails to teach (1) that the active ingredient must be a fungicide, (2) that the fungicide must be one which has no significant activity against fungal plant pathogens for the plant, and (3) that the plant or its propagation material must possess a transgenic event providing the plant with resistance to a herbicide and the treatment comprises foliar application of said herbicide. In particular, Theodoridis does not provide the guidance that is missing from Branley that the fungicide, if one is indeed selected as the active ingredient, must be one having no significant activity against fungal pathogens for the plant. Without providing this suggestion or motivation, one of ordinary skill would have no motivation to modify Branley to arrive at the claimed invention.

Phillion teaches fungicides for the control of take-all disease of plants. Therefore, contrary to the present invention, the compositions of Phillion, which indeed encompass some of the fungicides of use in the present invention, are used on account of their activity against the take-all disease pathogen - *Gaeumannomyces sp.* The reference does not teach that its compounds are useful for plants having fungal pathogens against which they have no substantial activity. On the contrary, guidance is provided for their use on plants in which take-all disease is a problem, namely cereals, particularly wheat and barley.

The Office has argued that one would be motivated to combine the references because Branley and Theodoridis both disclose the utility of combining fungicides and herbicides in a single composition, and because Phillion disclose some of the fungicides

useful in the present invention. The Office goes on to argue that the combination would have been *prima facie* obvious because the prior art teaches to combination of herbicides, such as glyphosate, with fungicidal agents, such as silthiofam, and beneficial microorganisms such as rhizobium for application to crops such as soybeans.

But there is at least one claim element that is not found in any prior art reference, and that is: there is no motivation to be found in the art before the Applicant's present application that suggests that one apply a fungicide to a plant where the fungicide is one having on substantial activity against the fungal pathogens of that plant. Such an act, prior to the present invention, would have been seen as wasteful and unnecessary. The ordinary practitioner would have had absolutely no guidance to do such a thing, and the art cited against the present claims does not provided this guidance.

It is respectfully requested, therefore, that the present ground of rejection be reconsidered and be withdrawn.

Claim 120 requires treatment of a plant other than wheat with an agent that has activity against *Gaeumannomyces graminis*, and treating the seed of the plant with an inoculant, where the plant or its propagation material has a transgenic event that provides resistance to glyphosate and the treatment further includes foliar treatment of the plant with glyphosate. It is respectfully maintained that a *prima facie* case of obviousness has not been made out against this claim, and it is requested that it be found to be allowable.

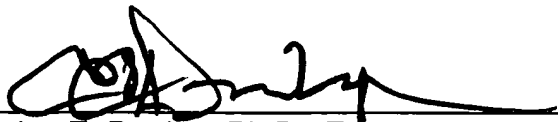
Request for reconsideration:

It is respectfully requested that the claims be reconsidered in view of the amendments and after consideration of the reasons for allowability that are discussed above and be found to be allowable. If one or more of the claims are found to not be allowable, a telephone call to the undersigned would be appreciated in order to resolve any remaining issues.

Respectfully submitted,

**Nelson Mullins Riley & Scarborough LLP**

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A handwritten signature in black ink, appearing to read 'C. E. Dunlap', written over a horizontal line.

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